

FIG. 1

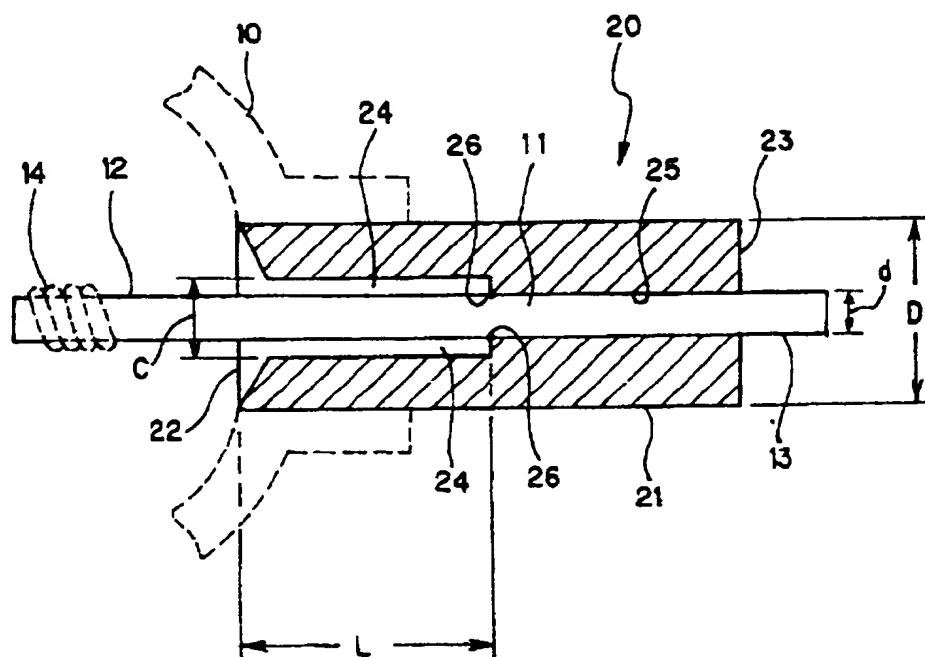


FIG. 2(a)

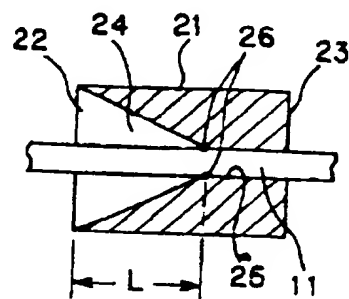


FIG. 2(b)

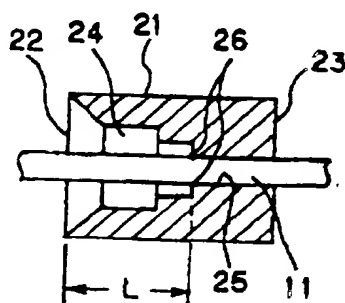


FIG. 2(c)

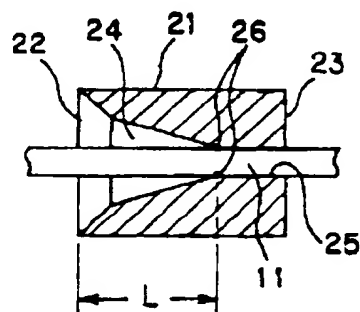


FIG. 2(d)

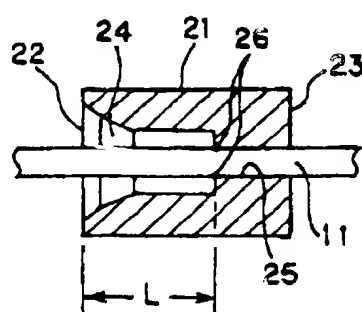


FIG. 3(a)

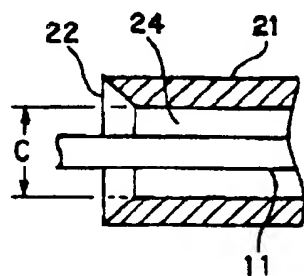


FIG. 3(b)

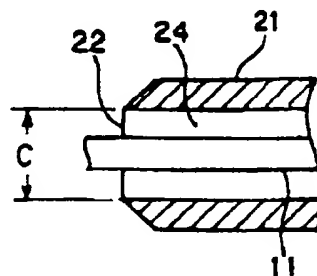


FIG. 3(c)

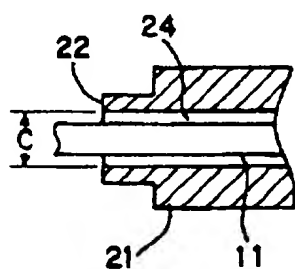


FIG. 3(d)

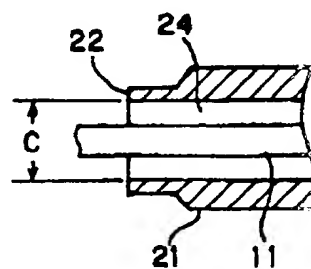


FIG. 3(e)

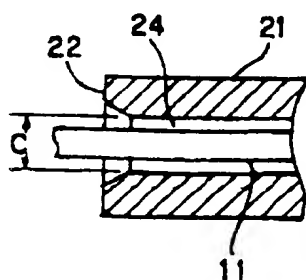


FIG. 4

| SiO ₂ - Mo Mixture | Mo content (Vol%) | Thickness of layer (mm) |
|-------------------------------|-------------------|-------------------------|
| 1st layer | 0 | 11.5 |
| 2nd layer | 0.6 | 2.5 |
| 3rd layer | 1.1 | 2.5 |
| 4th layer | 2.3 | 2.5 |
| 5th layer | 3.7 | 2 |
| 6th layer | 5.1 | 2 |
| 7th layer | 8.5 | 2 |
| 8th layer | 13 | 2 |
| 9th layer | 21 | 3.5 |
| 10th layer | 29 | 3.5 |
| 11th layer | 39 | 5.5 |
| 12th layer | 55 | 10.5 |

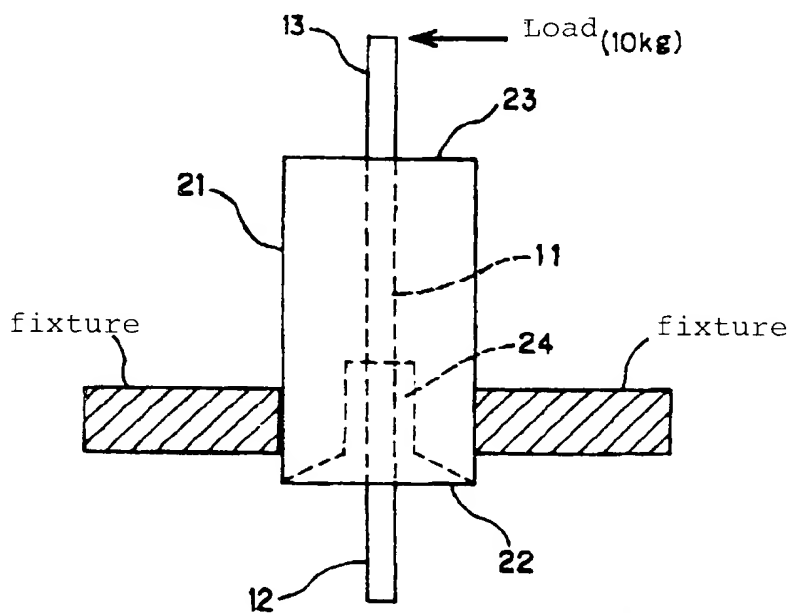


FIG. 6(a)

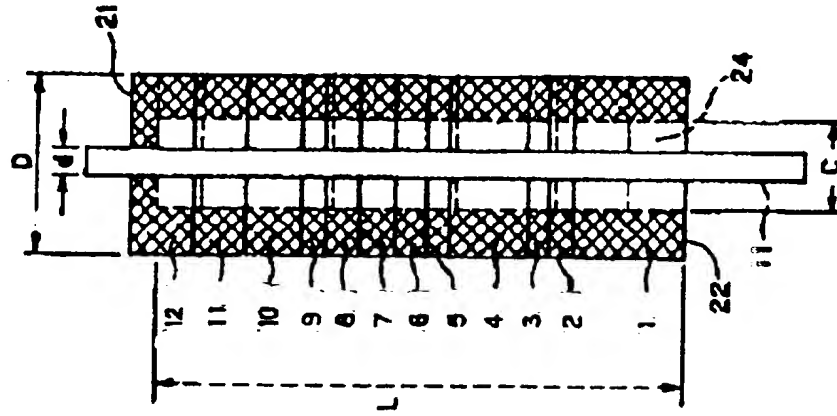


FIG. 6(b)

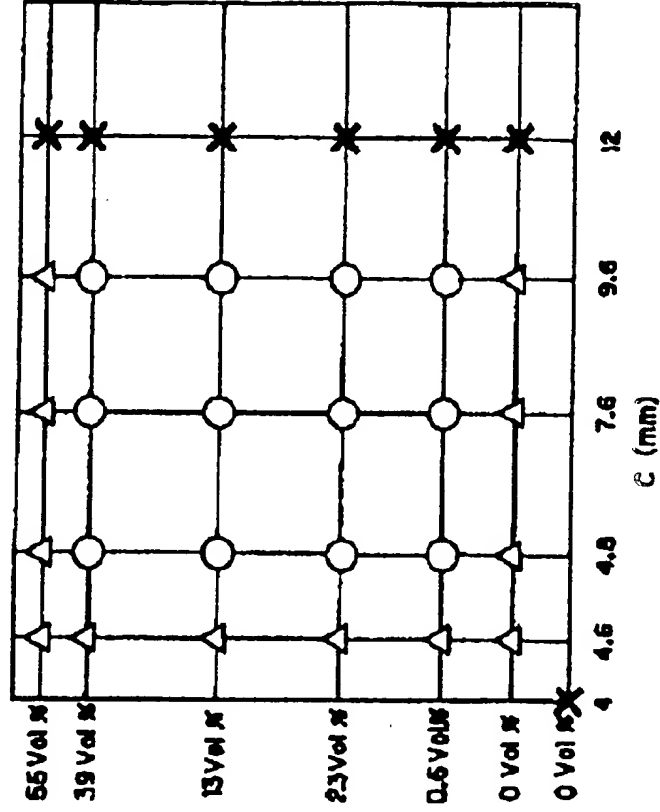


FIG. 7

| | Diameter D (mm) of functionally gradient material | Diameter d (mm) of lead bar | Proportion (Vol%) of conductive component at point of attachment | Hole diameter C (mm) | Evaluation |
|------------------|---|-----------------------------|--|----------------------|------------|
| Implementation 2 | 7 | 2 | 39 | 2.7 | ○ |
| Implementation 3 | 7 | 3 | 39 | 3.8 | ○ |
| Implementation 4 | 11 | 3 | 13 | 6.5 | ○ |
| Implementation 5 | 11 | 3 | 39 | 6.5 | ○ |